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Oncology Nursing™ UPDATE

LUNG CANCER EDITION

Clinical Investigator and Nursing Perspectives on the Management of Common Cancers

FACULTY INTERVIEWS

Kelly EH Goodwin, MSN, RN, ANP-BC
Heather Wakelee, MD
Mark A Socinski, MD
Beth Eaby-Sandy, MSN, CRNP, OCN
Corey J Langer, MD

EDITOR

Neil Love, MD

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2 Audio CDs

CNE Activity

Oncology Nursing Update Lung Cancer Edition

A Continuing Nursing Education Audio Series

OVERVIEW OF ACTIVITY

Lung cancer is one of the most rapidly evolving fields in oncology nursing and is a major public health concern. In 2015, lung cancer will culminate in 221,200 new cases and an estimated 158,040 deaths in the United States. Progress in the screening, prevention and treatment of this disease has been limited, and approximately 85% of patients who develop lung cancer will die of it. Traditional chemotherapy, surgery and radiation therapy have had a modest effect on long-term outcomes. However, the advent of novel therapies has led to recent improvements in disease-free and overall survival in select patient populations. Additionally, published results from ongoing clinical trials lead to the continual emergence of new therapeutic agents and changes in the use of existing treatments. To provide oncology nurses with the current and necessary information to address the disparate needs of patients with lung cancer, the *Oncology Nursing Update* audio series employs one-on-one interviews with medical oncologists and nurses who are experts in this disease. Upon completion of this CNE activity, oncology nurses should be able to formulate up-to-date and more complete approaches to the care of patients with lung cancer.

PURPOSE STATEMENT

To present the most current research developments and to provide the perspectives of nurse practitioners and clinical investigators on the diagnosis and treatment of lung cancer.

LEARNING OBJECTIVES

- Discuss the benefits and risks associated with systemic therapies used in the evidence-based treatment of lung cancer, including chemotherapy regimens and targeted biologic treatments.
- Develop a plan of care to manage the side effects associated with these therapies to support quality of life and continuation of treatment.
- Recall the scientific rationale for the ongoing investigation of novel agents or immunotherapeutic approaches in lung cancer, and counsel appropriately selected patients about study participation.
- Establish an evidence-based approach to the selection of induction and maintenance biologic therapy and/or chemotherapy for patients with advanced non-small cell lung cancer (NSCLC).
- Assess emerging research on the benefits of early palliative care for patients with metastatic NSCLC, and integrate this information, where appropriate, into patient consultations.

ACCREDITATION STATEMENT

Research To Practice is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

CREDIT DESIGNATION STATEMENT

This educational activity for 2.6 contact hours is provided by Research To Practice during the period of May 2015 through May 2016.

FOR SUCCESSFUL COMPLETION

This is an audio CNE program. This booklet contains CNE information, including learning objectives, faculty disclosures, a Post-test and an Educational Assessment and Credit Form. The corresponding website **ResearchToPractice.com/ONULung115** also includes links to relevant abstracts and full-text articles.

To receive credit, participants should read the learning objectives and faculty disclosures, listen to the CDs and complete the Post-test and Educational Assessment and Credit Form located in the back of this booklet or on our website at **ResearchToPractice.com/ONULung115/CNE**. A statement of credit will be issued only upon receipt of a completed Post-test with a score of 75% or better and a completed Educational Assessment and Credit Form. Your statement of credit will be mailed to you within 3 weeks or may be printed online.

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CONTENT VALIDATION AND DISCLOSURES

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FACULTY — **Ms Goodwin** had no real or apparent conflicts of interest to disclose. The following faculty (and their spouses/partners) reported real or apparent conflicts of interest, which have been resolved through a conflict of interest resolution process: **Dr Wakelee** — Consulting Agreement: Peregrine Pharmaceuticals Inc; Contracted Research: AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Exelixis Inc, Genentech BioOncology, Lilly, Novartis Pharmaceuticals Corporation, Pfizer Inc, Roche Laboratories Inc, Xcovery. **Dr Socinski** — Advisory Committee: Bristol-Myers Squibb Company, Lilly, Takeda Oncology; Contracted Research: AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Bristol-Myers Squibb Company, Celgene Corporation, Genentech BioOncology, GlaxoSmithKline, Lilly, Pfizer Inc, Takeda Oncology; Speakers Bureau: Celgene Corporation, Genentech BioOncology. **Ms Eaby-Sandy** — Advisory Committee: Clovis Oncology; Consulting Agreements: Boehringer Ingelheim Pharmaceuticals Inc, Eisai Inc; Speakers Bureau: Amgen Inc, Celgene Corporation, Merck. **Dr Langer** — Advisory Committee: Abbott Laboratories, Boehringer Ingelheim Pharmaceuticals Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clarient Inc, Clovis Oncology, Genentech BioOncology, Lilly, Merck, Myriad Genetic Laboratories Inc, Roche Laboratories Inc; Consulting Agreements: Abbott Laboratories, Bayer HealthCare Pharmaceuticals, Boehringer Ingelheim Pharmaceuticals Inc, Bristol-Myers Squibb Company, Celgene Corporation, Genentech BioOncology, Lilly, Merck, Roche Laboratories Inc, Takeda Oncology; Contracted Research: Bristol-Myers Squibb Company, Celgene Corporation, Daiichi Sankyo Inc, Genentech BioOncology, GlaxoSmithKline, Lilly, Merck, Pfizer Inc, Takeda Oncology, Veridex LLC; Data Safety Monitoring Committee: Amgen Inc, Synta Pharmaceuticals Corp.

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Track 2 Improved response rates and tolerability with *nab* paclitaxel in the treatment of advanced NSCLC

Track 3 Positive effects of early palliative care for patients with metastatic lung cancer

Track 4 Family support for patients undergoing treatment for metastatic lung cancer

Track 5 Management of bone metastases in patients with metastatic NSCLC

Track 6 Role of immunotherapy in lung cancer

Track 7 Efficacy and tolerability of anti-PD-1 and anti-PD-L1 antibodies in NSCLC

Track 8 Ramucirumab in combination with docetaxel for the treatment of metastatic NSCLC with disease progression on or after platinum-based chemotherapy

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Rizvi NA et al. **Safety and response with nivolumab (anti-PD-1; BMS-936558, ONO-4538) plus erlotinib in patients (pts) with epidermal growth factor receptor mutant (EGFR MT) advanced NSCLC.** *Proc ASCO* 2014;**Abstract 8022**.

Sequist L et al. **First-in-human evaluation of CO-1686, an irreversible, highly selective tyrosine kinase inhibitor of mutations of EGFR (activating and T790M).** *Proc ASCO* 2014;**Abstract 8010**.

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Shaw AT et al. **Crizotinib versus chemotherapy in advanced ALK-positive lung cancer.** *N Engl J Med* 2013;368(25):2385-94.

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Socinski MA et al. **Weekly *nab*-paclitaxel in combination with carboplatin versus solvent-based paclitaxel plus carboplatin as first-line therapy in patients with advanced non-small-cell lung cancer: Final results of a phase III trial.** *J Clin Oncol* 2012;30(17):2055-62.

Temel JS et al. **Early palliative care for patients with metastatic non-small-cell lung cancer.** *N Engl J Med* 2010;363(8):733-42.

Yang JCH et al. **Overall survival (OS) in patients (pts) with advanced non-small cell lung cancer (NSCLC) harboring common (del19/L858R) epidermal growth factor receptor mutations (EGFR mut): Pooled analysis of two large open-label phase III studies (LUX-Lung 3 [LL3] and LUX-Lung 6 [LL6]) comparing afatinib with chemotherapy (CT).** *Proc ASCO* 2014;**Abstract 8004**.

QUESTIONS (PLEASE CIRCLE ANSWER):

1. **Which of the following are contraindications to the use of bevacizumab?**
   a. Squamous cell histology
   b. Recent hemoptysis
   c. Both a and b
   d. Neither a nor b

2. **Which of the following ALK inhibitors is approved by the FDA for the treatment of ALK-positive lung cancer?**
   a. Crizotinib
   b. Ceritinib
   c. Alectinib
   d. Both a and b
   e. All of the above

3. **The mechanism of action of rociletinib (CO-1686) is _____.**
   a. ALK inhibitor
   b. Irreversible EGFR TKI
   c. KRAS inhibitor
   d. MET inhibitor
   e. Immune checkpoint inhibitor

4. **The evaluation of *nab* paclitaxel in combination with carboplatin versus solvent-based paclitaxel in combination with carboplatin for patients with advanced squamous cell carcinoma of the lung indicated _____ in patients who received *nab* paclitaxel/carboplatin.**
   a. Greater efficacy, improved tolerability
   b. Less efficacy, improved tolerability

5. **Which of the following side effects is of concern when counseling patients with NSCLC who are about to initiate treatment with erlotinib?**
   a. Trichomegaly of the eyelashes
   b. Diarrhea
   c. Rash
   d. All of the above

6. **Side effects associated with the use of rociletinib (CO-1686) include dysgeusia, alopecia and muscle spasms.**
   a. True
   b. False

7. **The Phase III PointBreak trial evaluating carboplatin/paclitaxel/bevacizumab followed by bevacizumab maintenance therapy versus carboplatin/pemetrexed/bevacizumab followed by pemetrexed/bevacizumab maintenance therapy demonstrated a statistically significant difference in overall survival between the 2 arms.**
   a. True
   b. False

8. **Benefits of the addition of early palliative care to primary therapy for patients with metastatic NSCLC include _____.**
   a. Development of coping skills
   b. Improved management of symptoms
   c. Increase in overall survival
   d. All of the above

EDUCATIONAL ASSESSMENT AND CREDIT FORM

Oncology Nursing Update Lung Cancer Edition — Issue 1, 2015

Research To Practice is committed to providing valuable continuing education for oncology clinicians, and your input is critical to helping us achieve this important goal. Please take the time to assess the activity you just completed, with the assurance that your answers and suggestions are strictly confidential.

PART 1 — Please tell us about your experience with this educational activity

How would you characterize your level of knowledge on the following topics?

4 = Excellent 3 = Good 2 = Adequate 1 = Suboptimal

	BEFORE	AFTER
Long-term care of patients with EGFR-activating mutations	4 3 2 1	4 3 2 1
Clinical strategies to prevent and manage EGFR TKI-associated dermatotoxicities	4 3 2 1	4 3 2 1
Role of ceritinib for patients with ALK-positive lung cancer that progresses on crizotinib	4 3 2 1	4 3 2 1
Rational integration of *nab* paclitaxel into the treatment of NSCLC	4 3 2 1	4 3 2 1
Mechanism of action of, toxicities with and FDA approval of ramucirumab	4 3 2 1	4 3 2 1
Emerging role of immunotherapeutic approaches in the management of NSCLC	4 3 2 1	4 3 2 1

Practice Setting:

☐ Academic center/medical school ☐ Community cancer center/hospital ☐ Group practice

☐ Solo practice ☐ Government (eg, VA) ☐ Other (please specify).....

Approximately how many new patients with lung cancer do you see per year? ..... patients

Was the activity evidence based, fair, balanced and free from commercial bias?

☐ Yes ☐ No

If no, please explain:.....

.....

Will this activity help you improve patient care?

☐ Yes ☐ No ☐ Not applicable

If yes, how will it help you improve patient care?.....

.....

Did the activity meet your educational needs and expectations?

☐ Yes ☐ No

If no, please explain:.....

.....

Please respond to the following learning objectives (LOs) by circling the appropriate selection:

4 = Yes 3 = Will consider 2 = No 1 = Already doing N/M = LO not met N/A = Not applicable

As a result of this activity, I will be able to:

- Discuss the benefits and risks associated with systemic therapies used in the evidence-based treatment of lung cancer, including chemotherapy regimens and targeted biologic treatments. . . . . 4 3 2 1 N/M N/A
- Develop a plan of care to manage the side effects associated with these therapies to support quality of life and continuation of treatment. . . . . 4 3 2 1 N/M N/A
- Recall the scientific rationale for the ongoing investigation of novel agents or immunotherapeutic approaches in lung cancer, and counsel appropriately selected patients about study participation. . . . . 4 3 2 1 N/M N/A
- Establish an evidence-based approach to the selection of induction and maintenance biologic therapy and/or chemotherapy for patients with advanced non-small cell lung cancer (NSCLC). . . . . 4 3 2 1 N/M N/A
- Assess emerging research on the benefits of early palliative care for patients with metastatic NSCLC, and integrate this information, where appropriate, into patient consultations.. . . . . 4 3 2 1 N/M N/A

EDUCATIONAL ASSESSMENT AND CREDIT FORM (continued)

What other practice changes will you make or consider making as a result of this activity?

.....

.....

What additional information or training do you need on the activity topics or other oncology-related topics?

.....

.....

Additional comments about this activity:

.....

.....

As part of our ongoing, continuous quality-improvement effort, we conduct postactivity follow-up surveys to assess the impact of our educational interventions on professional practice. Please indicate your willingness to participate in such a survey.

- ☐ Yes, I am willing to participate in a follow-up survey.
- ☐ No, I am not willing to participate in a follow-up survey.

PART 2 — Please tell us about the faculty and editor for this educational activity

4 = Excellent 3 = Good 2 = Adequate 1 = Suboptimal

Faculty	Knowledge of subject matter	Effectiveness as an educator
Kelly EH Goodwin, MSN, RN, ANP-BC	4 3 2 1	4 3 2 1
Heather Wakelee, MD	4 3 2 1	4 3 2 1
Mark A Socinski, MD	4 3 2 1	4 3 2 1
Beth Eaby-Sandy, MSN, CRNP, OCN	4 3 2 1	4 3 2 1
Corey J Langer, MD	4 3 2 1	4 3 2 1
Editor	**Knowledge of subject matter**	**Effectiveness as an educator**
Neil Love, MD	4 3 2 1	4 3 2 1

Please recommend additional faculty for future activities:

.....

Other comments about the faculty and editor for this activity:

.....

REQUEST FOR CREDIT — Please print clearly

Name:..... Specialty:.....

Professional Designation:

☐ MD ☐ DO ☐ PharmD ☐ NP ☐ CNS ☐ RN ☐ PA ☐ Other.....

Street Address:..... Box/Suite:.....

City, State, Zip:.....

Telephone:..... Fax:.....

Email:.....

Signature:..... Date:.....

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